

**LISTING OF CLAIMS:**

**This listing of claims will replace all prior versions and listings of claims in the Application.**

1-34. **(Cancelled)**

35. **(New)** A method of performing validity evaluations on data derived at a remote vehicle emission sensing device, the method comprising:

receiving data for at least one vehicle from at least one remote vehicle emission sensing device and creating one or more records that contain the received data;

evaluating the received data contained in the one or more records based on predetermined reliability criteria;

determining a category for preselected data contained in the one or more records;

providing the one or more records and a corresponding category to a data processor, wherein the corresponding category indicates a reliability for the associated record;

excluding records from subsequent processing if the corresponding category indicates that the associated record is unreliable; and

processing the one or more records that have not been excluded.

36. **(New)** The method of claim 35, wherein processing the one or more records includes matching the one or more records with owner registration information.

37. **(New)** The method of claim 35, wherein processing the one or more records includes creating a file for the one or more records.

38. **(New)** The method of claim 36, wherein matching the one or more records with owner registration information includes matching vehicle license plate data.

39. **(New)** The method of claim 35, wherein the received data includes emissions data associated with the at least one vehicle and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria include two or more of:

- a) checking for insufficient exhaust plume,
- b) checking for a calibration error,
- c) checking for improper optical component alignment,
- d) checking for inordinately low or high readings for one or more exhaust components,
- e) checking for large variations between different readings taken for the same exhaust plume,
- f) determining whether there is a second source of emissions present,
- g) determining whether vehicle speed criteria are met,
- h) determining whether vehicle acceleration criteria are met, and
- i) determining whether ambient or local conditions have significantly influenced the data collected.

40. **(New)** The method of claim 35, wherein the received data includes emissions data associated with the at least one vehicle and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria include one or more of:

- a) checking for a calibration error,
- b) checking for inordinately low or high readings for one or more exhaust components,
- c) checking for large variations between different readings taken for the same exhaust plume, and

d) determining whether ambient or local conditions have significantly influenced the data collected.

41. **(New)** The method of claim 35, wherein the received data includes emissions data associated with the at least one vehicle and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria include one or more of:

- a) checking for insufficient exhaust plume,
- b) checking for improper optical component alignment,
- c) determining whether there is a second source of emissions present,
- d) determining whether vehicle speed criteria are met, and
- e) determining whether vehicle acceleration criteria are met.

42. **(New)** The method of claim 35, wherein excluding records from subsequent processing if the corresponding category indicates that the associated record is unreliable includes:

deleting the excluded records.

43. **(New)** The method of claim 35, wherein the one or more records comprise at least two of:

emissions data,  
vehicle image data, and  
vehicle license plate data.

44. **(New)** The method of claim 35, wherein the received data includes emissions data associated with the at least one vehicle and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes comparing the emissions data to one or more predetermined data ranges.

45. **(New)** The method of claim 35, wherein the received data includes vehicle image data and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes determining whether the vehicle image data for the at least one vehicle is readable.
46. **(New)** The method of claim 35, wherein the received data includes vehicle license plate data and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes determining whether the vehicle license plate data matches a vehicle image for the at least one vehicle.
47. **(New)** A system for performing validity evaluations on data derived at a remote vehicle emission sensing device, the system comprising:
- receiving means that receives data for at least one vehicle from at least one remote vehicle emission sensing device and creates one or more records that contain the received data;
  - evaluating means that evaluates the received data contained in the one or more records based on predetermined reliability criteria;
  - determining means that determines a category for preselected data contained in the one or more records;
  - providing means that provides the one or more records with a corresponding category to a data processor, wherein the corresponding category indicates a reliability for the associated record;
  - excluding means that excludes the records from subsequent processing if the corresponding category indicates that the associated record is unreliable; and
  - processing means that perform processing on the one or more records that have not been excluded.
48. **(New)** The system of claim 47, wherein the processing means matches the one or more records with owner registration records.

49. **(New)** The system of claim 47, wherein the processing means creates a file for the one or more records.

50. **(New)** The system of claim 47, wherein the processing means further includes matching means that matches the one or more records with owner registration records using vehicle license plate data.

51. **(New)** The system of claim 47, wherein the received data includes emissions data and wherein the evaluating means evaluates the received data contained in the one or more records based on predetermined reliability criteria including two or more of:

- a) checking for insufficient exhaust plume,
- b) checking for a calibration error,
- c) checking for improper optical component alignment,
- d) checking for inordinately low or high readings for one or more exhaust components,
- e) checking for large variations between different readings taken for the same exhaust plume,
- f) determining whether there is a second source of emissions present,
- g) determining whether vehicle speed criteria are met,
- h) determining whether vehicle acceleration criteria are met, and
- i) determining whether ambient or local conditions have significantly influenced the data collected.

52. **(New)** The system of claim 47, wherein the received data includes emissions data and wherein the evaluating means evaluates the received data contained in the one or more records based on predetermined reliability criteria including one or more of:

- a) checking for a calibration error,

b) checking for inordinately low or high readings for one or more exhaust components,

c) checking for large variations between different readings taken for the same exhaust plume, and

d) determining whether ambient or local conditions have significantly influenced the data collected.

53. **(New)** The system of claim 47, wherein the received data includes emissions data and wherein the evaluating means evaluates the received data contained in the one or more records based on predetermined reliability criteria including one or more of:

a) checking for insufficient exhaust plume,

b) checking for improper optical component alignment,

c) determining whether there is a second source of emissions present,

d) determining whether vehicle speed criteria are met, and

e) determining whether vehicle acceleration criteria are met.

54. **(New)** The system of claim 47, wherein the excluding means further comprises: data deleting means that deletes the excluded records.

55. **(New)** The method of claim 47, wherein the one or more records comprise at least two of:

emissions data,

vehicle image data, and

vehicle license plate data.

56. **(New)** The method of claim 47, wherein the received data includes emissions data associated with the at least one vehicle and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes comparing the emissions data to one or more predetermined data ranges.

57. **(New)** The method of claim 47, wherein the received data includes vehicle image data and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes determining whether the vehicle image data for the at least one vehicle is readable.

58. **(New)** The method of claim 47, wherein the received data includes vehicle license plate data and wherein evaluating the received data contained in the one or more records based on predetermined reliability criteria includes determining whether the vehicle license plate data matches a vehicle image for the at least one vehicle.

59. **(New)** A method of managing vehicle emissions records that include vehicle data obtained at a remote emission sensing device, the method comprising:

- obtaining at least one vehicle image at the remote emission sensing device, the at least one vehicle image including a license plate image associated with the at least one vehicle;

- determining license plate data from the license plate image;

- transferring the license plate data and the license plate image to at least one record; and

- enabling the at least one record to be edited.

60. **(New)** The method of claim 59, wherein the at least one vehicle image is associated with emissions data that corresponds to the at least one vehicle, and wherein the emissions data and the at least one vehicle image are forwarded to a remote processing station.

61. **(New)** The method of claim 59, wherein determining license plate data from the license plate image is performed by an automatic license plate reader.

62. **(New)** The method of claim 61, wherein enabling the at least one record to be edited includes verifying that the license plate image matches the license plate data determined by the automatic license plate reader.
63. **(New)** The method of claim 59, wherein enabling the at least one record to be edited includes specifying a license plate type for the license plate image.
64. **(New)** The method of claim 59, wherein enabling the at least one record to be edited includes enabling a data handler to edit the at least one record via a graphical user interface.
65. **(New)** The method of claim 61, wherein enabling the at least one record to be edited includes enabling an inaccuracy in the license plate data introduced by the automatic license plate reader to be corrected.
66. **(New)** The method of claim 60, wherein enabling the at least one record to be edited is bypassed if the emissions data that corresponds to the at least one vehicle is deemed unreliable.
67. **(New)** The method of claim 63, wherein the license plate type comprises at least one of:
- an unreadable license plate type,
  - obscured license plate type, and
  - a non-detected license plate type.
68. **(New)** The method of claim 63, wherein the license plate type comprises at least one of:
- a federal license plate type,
  - a state license plate type,



an environmental license plate type,  
an electric license plate type,  
a military license plate type,  
a diplomat license plate type,  
a hybrid license plate type, and  
a natural gas license plate type.

69. **(New)** The method of claim 63, wherein the license plate type comprises at least one of:

an out of state license plate type,  
a law enforcement license plate type,  
a trailer license plate type,  
an affinity license plate type,  
a veteran license plate type,  
a dealer license plate type, and  
a disabled license plate type.

70. **(New)** The method of claim 63, wherein the license plate type comprises at least one of:

a tractor trailer license plate type,  
a motorcycle license plate type, and  
a bus license plate type.

71. **(New)** The method of claim 59, wherein enabling the at least one record to be edited includes enabling an indicator of traffic patterns that pass the remote sensing device to be encoded in the at least one record.

72. **(New)** The method of claim 59, wherein enabling the at least one record to be edited includes enabling an indicator of one or more of the following to be encoded in that at least one record:

- an engine temperature,
- an ambient condition,
- a date of emissions test,
- a time of emissions test,
- speed data,
- acceleration data, and
- calibration data.

73. **(New)** A system for managing vehicle emissions records that include vehicle data obtained at a remote emission sensing device, the system comprising:

- image obtaining means that obtains at least one vehicle image at the remote emission sensing device, the at least one image of the at least one vehicle including a license plate image associated with the at least one vehicle;

- determining means that determines license plate data from the license plate image;

- transferring means that transfers the license plate data and the license plate image to at least one record; and

- enabling means that enables the at least one record to be edited.

74. **(New)** The system of claim 73, wherein the vehicle image is associated with emissions data that corresponds to the at least one vehicle, and wherein the at least one vehicle image and the emissions data are forwarded to a remote processing station.

75. **(New)** The system of claim 73, wherein the determining means comprises at least one automatic license plate reader.

76. **(New)** The system of claim 75, wherein the enabling means enables verification that the license plate image matches the license plate data determined by the at least one automatic license plate reader.

77. **(New)** The system of claim 73, wherein the enabling means enables a license plate type for the license plate image to be specified.

78. **(New)** The system of claim 73, wherein the enabling means enables a data handler using a graphical user interface to edit the at least one record.

79. **(New)** The system of claim 75, wherein the enabling means is used to correct an inaccuracy in the license plate data introduced by the at least one automatic license plate reader.

80. **(New)** The system of claim 74, wherein the enabling means enable the at least one record to be deleted if the emissions data that corresponds to the at least one vehicle is deemed unreliable.

81. **(New)** The system of claim 77, wherein the license plate type comprises at least one of:

- an unreadable license plate type,
- obscured license plate type, and
- a non-detected license plate type.

82. **(New)** The system of claim 77, wherein the license plate type comprises at least one of:

- a federal license plate type,
- a state license plate type,

an environmental license plate type,  
an electric license plate type,  
a military license plate type,  
a diplomat license plate type,  
a hybrid license plate type, and  
a natural gas license plate type.

83. **(New)** The system of claim 77, wherein the license plate type comprises at least one of:

an out of state license plate type,  
a law enforcement license plate type,  
a trailer license plate type,  
an affinity license plate type,  
a veteran license plate type,  
a dealer license plate type, and  
a disabled license plate type.

84. **(New)** The system of claim 77, wherein the license plate type comprises at least one of:

a tractor trailer license plate type,  
a motorcycle license plate type, and  
a bus license plate type.

85. **(New)** The system of claim 73 further comprising data validating means that validates the license plate data.

86. **(New)** The system according to claim 85, wherein the data validating means that validates the license plate data further comprises:

means for comparing the license plate data and the license plate image;

means for correcting the license plate data if the license plate image is inconsistent with the license plate data; and

means for confirming that the license plate data and the license plate image of are consistent.

87. **(New)** A method of verifying vehicle data obtained at a remote emission sensing device for one or more vehicles, the method comprising:

obtaining at least one license plate image at the remote emission sensing device;

forwarding the at least one license plate image and emissions data that is associated with the at least one license plate image to a processing station;

automatically reading license plate data from the at least one license plate image;

transferring the license plate data, the at least one license plate image, and the associated emissions data to at least one record; and

enabling the at least one record to be edited, wherein enabling the at least one record to be edited includes enabling a license plate type for the at least one license plate image to be added to the at least one record.

88. **(New)** A method of tracking data custody information for at least one emissions record that corresponds to at least one vehicle, the at least one emissions record containing at least one set of emissions data collected at a remote sensing device and information relating to the at least one vehicle, wherein the data custody information is tracked during a plurality of data processing stages, the method comprising:

obtaining the at least one emissions record that corresponds to the at least one vehicle;

providing a custody log for maintaining custody information that corresponds to the at least one emissions record that corresponds to the at least one vehicle;

evaluating the at least one emissions record that corresponds to the at least one vehicle and creating one or more corresponding entries in the custody log; and

matching the at least one emissions record that corresponds to the at least one vehicle with prestored information relating to the at least one vehicle and creating one or more corresponding entries in the custody log.

89. **(New)** The method of claim 88, wherein evaluating the at least one emissions record that corresponds to the at least one vehicle and creating one or more corresponding entries in the custody log further comprises:

verifying the at least one emissions record and creating a first entry in the custody log, wherein verifying includes determining whether at least one set of emissions data that is contained in the at least one emissions record is reliable based on predetermined reliability criteria.

90. **(New)** The method of claim 89, wherein evaluating the at least one emissions record that corresponds to the at least one vehicle and creating one or more corresponding entries in the custody log further comprises:

reviewing the at least one emissions record and creating a second entry in the custody log.

91. **(New)** The method of claim 88, wherein matching the at least one emissions record that corresponds to the at least one vehicle with prestored information relating to the at least one vehicle and creating one or more corresponding entries in the custody log comprises:

matching the at least one emissions record with owner registration records and creating a third entry in the custody log.

92. **(New)** The method of claim 88 further comprising archiving the at least one emissions record that corresponds to the at least one vehicle and creating a fourth entry in the custody log.

93. **(New)** The method of claim 88, wherein the one or more entries that correspond to evaluating the at least one emissions record comprise custody information of the at least one emissions record, the custody information of the at least one emissions record including:

an identity of at least one person who accesses the at least one emissions record, and

at least one time entry that indicates when the at least one emissions record was accessed.

94. **(New)** The method according to claim 88, wherein the custody log is configured to be used as evidence in a legal proceeding.

95. **(New)** A system for tracking data custody information that corresponds to the at least one emissions record for at least one vehicle, the at least one emissions record containing at least one set of emissions data collected at a remote sensing device and information relating to the at least one vehicle, wherein the data custody information is tracked during a plurality of data processing stages, the system comprising:

record obtaining means that obtains the at least one emissions record that corresponds to the at least one vehicle;

custody log providing means that provides a custody log for maintaining custody information for the at least one emissions record that corresponds to the at least one vehicle;

data evaluating means that evaluates the at least one emissions record that corresponds to the at least one vehicle and causes one or more corresponding entries to be created in the custody log; and

data matching means that matches the at least one emissions record that corresponds to the at least one vehicle with prestored information relating to the at least one vehicle and causes one or more corresponding entries to be created in the custody log.

96. **(New)** The system of claim 95, wherein the data evaluating means further comprises data verifying means that verifies the at least one emissions record and causes a first entry to be created in the custody log, and wherein the data verifying means determines whether at least one set of emissions data that is contained in the at least one emissions record is reliable based on predetermined reliability criteria.

97. **(New)** The system of claim 95, wherein the data evaluating means further comprises data reviewing means that reviews the at least one emissions record and causes a second entry to be created in the custody log.

98. **(New)** The system of claim 95, wherein the data matching means matches the at least one emissions record with owner registration information and causes a third entry to be created in the custody log.

99. **(New)** The system of claim 95 further comprising data archiving means that archives the at least one emissions record that corresponds to the at least one vehicle and causes a fourth entry to be created in the custody log.

100. **(New)** The system of claim 95, wherein the one or more entries that correspond to the evaluating means comprise custody information of the at least one emissions record, the custody information of the at least one emissions record including:  
an identity of at least one person who accesses the at least one emissions record, and



at least one time entry that indicates when the at least one emissions record was accessed.

101. **(New)** The system according to claim 95, wherein the custody log is configured to be used as evidence in a legal proceeding.

102. **(New)** A method of tracking data custody information for at least one emissions record that corresponds to the at least one vehicle, the at least one emissions record containing at least one set of emissions data collected at a remote sensing device and information relating to the at least one vehicle, wherein the data custody information is tracked during a plurality of data processing stages, the method comprising:

- obtaining the at least one emissions record that corresponds to the at least one vehicle;

- providing a custody log for maintaining custody information for the at least one emissions record that corresponds to the at least one vehicle;

- conducting at least a first data processing step and creating a first corresponding entry in the custody log; and

- conducting at least a second data processing step and creating a second corresponding entry in the custody log.

103. **(New)** The method of claim 102, wherein the first corresponding entry in the custody log identifies a first person who had custody of the at least one emissions record during the first data processing step and the second corresponding entry in the custody log identifies a second person who had custody of the emissions data during the second data processing step.